DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000404 Address: 333 Burma Road **Date Inspected:** 06-Sep-2007

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 2330 **OSM Departure Time:** 800 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Lu Jian Ping & Huang Li No **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No N/A No N/A **Electrode to specification:** Yes No N/A Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component:** Mock Up

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77.00 and 114.00, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item	Description	WBS	Dwg No.	Status	
1	Skin Plate E	NA	NA	Work In Progress	
	Mock-Up 77.00, skin plate E assembly: Caltrans QA Inspector observed ZPMC shop worker perform air carbon arc				
	backgouge, weld joint preparation. The stiffener plate is identified as mp5-1 to MA1; weld map number				
	MUSA-MA1-3A. The graveyard shift had previously worked on the grinding of the weld joint preparation, the night				
	before, but was not completed. ZPMC QA inspector, Mr. Shen Xue Jun reported that the weld joint would not be				
	completed during this workshift, but would be turned over to day shift again for completion.				
2	Claire Diago C	NTA	NT A	Wasta In Dua susas	

Skin Plate C NA NA Work In Progress Mock-Up 114.00, Skin Plate C (bottom plate): Caltrans QA Inspector observed submerged arc welding (SAW) in progress at plate piecemark, mp1017 to MA111, weld number MUSC-MA-111-1, MUSC-MA111-2 and mp1018 to MA111, and weld number MUSC-MA-111-3. The approved welder operator is observed welding a partial joint penetration (PJP) fill/cover pass weld in the flat position. Welder is identified as Mr. Han Chang Hou. The welder is using welding procedure specification WPS-B-T-2321-B-P3-S, Revision 0. Caltrans QA measured current welding parameters at approximately 670 amps, 34 volts and travel speed, 615 millimeters per minute (mm/min). Preheat and interpass temperatures were verified during welding activities. Preheat temperature prior to the start of welding measures more than 110 degrees Celsius (230 degree Fahrenheit) but less than 232 degrees Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SAW consumables were verified and identified as

WELDING INSPECTION REPORT

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JW-3, classification EM12K, diameter 4.8 mm (.189 inches) electrode and, JF-B Flux, classificationF7A2. Following digital picture illustrates welding in progress at weld number MUSC-MA111-2 & 3.





Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hasler,Mike	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer